

August 16, 2019

Mr. McKenzie Mallary Remedial Project Manager U.S. EPA 61 Forsyth Street SW Atlanta, GA 30303-3104 Mr. Joel P. Padgett, P.G., Geologist/Hydrologist III Federal Remediation Section Division of Site Assessment and Remediation Bureau of Land and Waste Management South Carolina Department of Health and Environmental Control 2600 Bull Street Columbia, SC 29201

RE: Request to Remove Well MM-14C from Monitoring Program

Dominion Energy South Carolina, Inc.

Calhoun Park Area Site Charleston, South Carolina

Dear Mr. Mallary and Mr. Padgett:

On behalf of Dominion Energy South Carolina, Inc. (DESC), this request is submitted for approval to remove well MM-14C from the annual intermediate groundwater monitoring program at the Calhoun Park Area (CPA) site in Charleston, South Carolina.

A recommendation to remove well MM-14C was included in the Intermediate Groundwater Monitoring Results Report for the December 2018 event submitted on May 31, 2019. In the SCDHEC letter dated June 20, 2019 that provided comments on the report, the Division of Site Assessment, Remediation and Revitalization did <u>not</u> concur with removal of MM-14C from the program without submittal of additional data. The letter stated the Division will reconsider the request upon review of additional information. The additional information is provided within this submittal.

For reference, the location of well MM-14C is identified on Figure 1 in Attachment A. Analytical data as received from the laboratory is summarized in Table 1 in Attachment A for the last six rounds of monitoring (March 2015 through December 2018). As noted in the table, the data reported are based on the laboratory method detection limit (MDL) rather than the reporting limit (RL). For reference, copies of the results for MM-14C samples from the laboratory reports are provided as Attachment B.

The six sets of data in Table 1 for the eight constituents in the monitoring program provide a total of 48 analytical results. The clean-up goals for each constituent are also provided in Table 1. Constituents were not detected at the laboratory MDL for 31 of the 48 results. Estimated ("J") values between the MDL and RL, with each estimated value below the clean-up goal, were reported for 13 results summarized in Table 1. Of the four detections above the RL, three were at or below the clean-up goal and one result (benzene at 9 ug/L in the June 2017 sample) was slightly above the clean-up goal of 5 ug/L.

Based upon this more detailed review of the previous analytical results provided by the laboratory as reported using the MDL, the recommendation from the recently submitted report to remove MM-14C from the annual monitoring program remains valid.



Should you have any questions or require any additional information, please contact me at (412) 829-9650. We appreciate your assistance in this matter.

Sincerely,

Apex Companies, LLC

William J. Zeli, P.E.

Environmental Program Manager

cc:

P. Biery, T. Effinger, R. Contrael - DESC

Attachments

A Figures and Tables

B MM-14C Analytical Results as Reported by Laboratory

ATTACHMENT A

FIGURES AND TABLES

Figure 1 Interme	liate Groundwater	Monitoring Locations
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Table 1 Intermediate Groundwater Monitoring Program, Middle Intermediate Well MM-14C, Analytical Results as Reported by Laboratory – March 2015 through December 2018

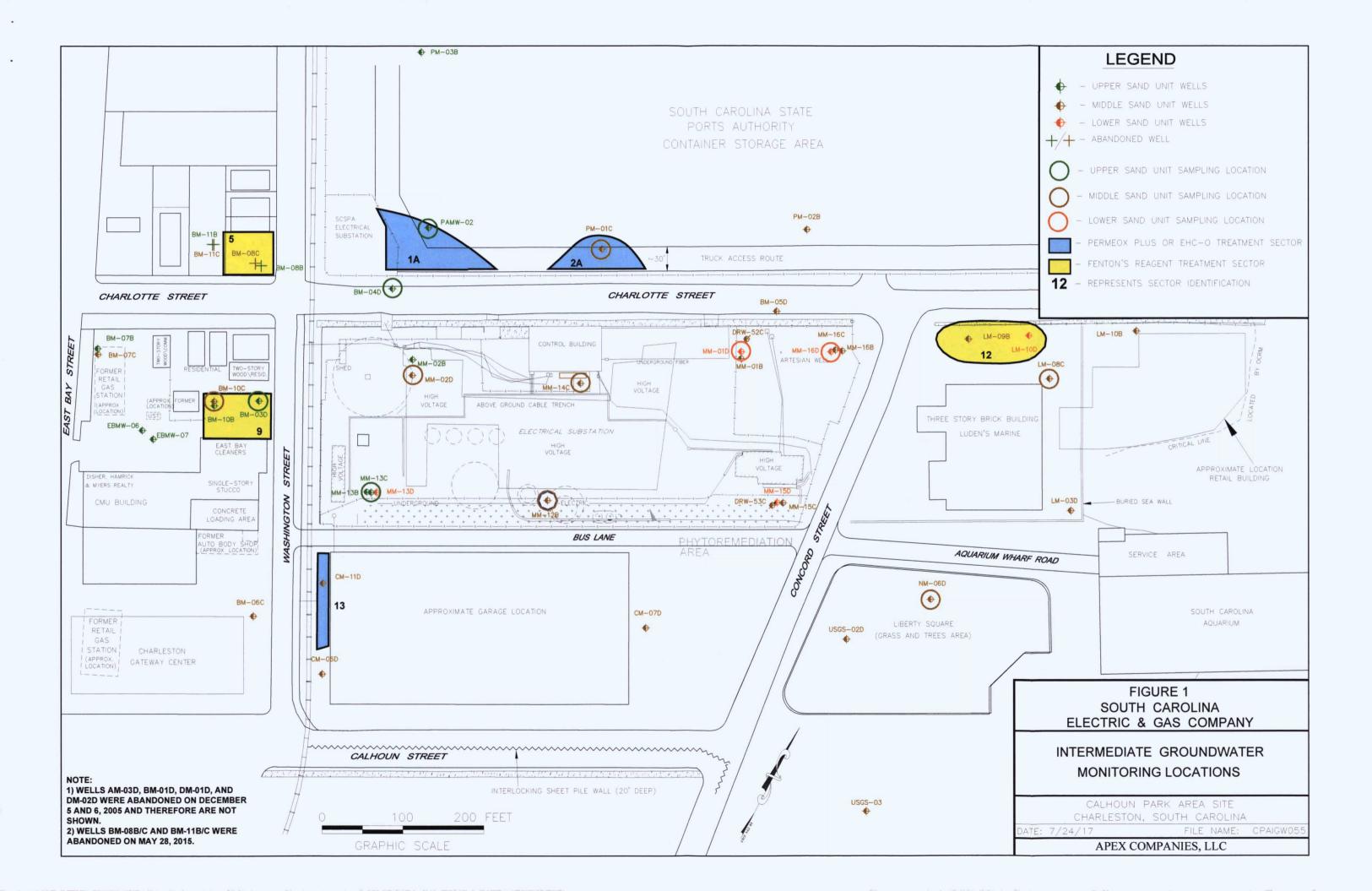


TABLE 1

INTERMEDIATE GROUNDWATER MONITORING PROGRAM MIDDLE INTERMEDIATE WELL MM-14C ANALYTICAL RESULTS AS REPORTED BY LABORATORY - MARCH 2015 THROUGH DECEMBER 2018

DESC Calhoun Park Area Site Charleston, South Carolina

Constituent	Units	Cleanup Goal (µg/L)	3/17/2015	12/18/2015	9/26/2016	6/8/2017	3/21/2018	12/12/2018
Volatiles							· · · ·	
	1							l
Benzene	μg/L	5	0.21 U	2.8	1.4 J	9.0	3.6 J	3.3 J
Ethylbenzene	μg/L	700	0.27 U	1.0 U	0.27 U	0.37 U	0.37 U	0.30 J
Toluene	μg/L	1,000	0.65 J	1.0 U	0.21 U	` 0.29 U	0.29 U	0.23 U
Xylenes, Total	μg/L	10,000	0.64 J	2.0 U	0.39 U	0.56 J	0.67 J	0.76 J
Semi-Volatiles								
2,4-Dimethylphenol	μg/L	700	0.84 U	5.1 U	0.84 U	0.81 U	0.83 U	0.06 U
Benzo(a)pyrene	μg/L	0.2	0.057 U	0.2	0.057 U	0.055 U	0.056 U	0.083 U
Carbazole ⁽¹⁾	µg/L	5	0.12 U	5.1 U	0.12 U	0.11 U	0.11 U	0.053 U
Naphthalene	μg/L	1,500	0.073 U	0.41	0.40 J	5.1 J	0.26 J	0.32 J

Notes:

U - Indicates the consitutent was not detected at the laboratory method detection limit (MDL), or the reporting limit (RL) used for the December 2015 analyses.

J - Indicates an estimated value reported between the laboratory MDL and RL.

ATTACHMENT B LABORATORY ANALYTICAL DATA FOR MM-14C SAMPLES

Page 1 of 1

Report of Analysis

Client Sample ID: MM-14C Lab Sample ID:

LA4840-7

Date Sampled:

Matrix:

AQ - Ground Water

Date Received: 03/19/15

03/17/15

Method:

SW846 8260B

Project:

Percent Solids: n/a

Intermediate GWS- SCE&G Calhoun Park Area Site

Run #1

DF Analyzed 1H009577.D 03/24/15 1

By SV Prep Date n/a

n/a

Prep Batch Analytical Batch V1H147

Run #2

Purge Volume

File ID

Run #1 5.0 ml

Run #2

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.00021 U	0.0010	0.00021	mg/l	
108-88-3	Toluene	0.00065	0.0010	0.00021	mg/l	J
100-41-4	Ethylbenzene	0.00027 U	0.0010	0.00027	mg/l	•
1330-20-7	Xylene (total)	0.00064	0.0010	0.00039	mg/l	J
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limit	ts	
17060-07-0	1,2-Dichloroethane-D4	94%		84-12	4%	
2037-26-5	Toluene-D8	99%		83-11	5%	
460-00-4	4-Bromofluorobenzene	98%		89-11	1%	

U = Not detected

MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank



Page 1 of 1

Report of Analysis

Client Sample ID: MM-14C Lab Sample ID: LA4840-7

Matrix: Method:

Project:

AQ - Ground Water

SW

SW846 8270D SW846 3510C

Intermediate GWS- SCE&G Calhoun Park Area Site

Date Sampled: Date Received:

03/17/15 03/19/15

Percent Solids: n/a

File ID DF Analyzed By Prep Date Prep Batch Analytical Batch Run #1 C0003202.D 1 03/20/15 IK 03/20/15 OP805 EC337

Run #2

Initial Volume Final Volume

Run #1 970 ml

nl 1.0 ml

Run #2

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
105-67-9	2,4-Dimethylphenol	0.00084 U	0.0052	0.00084	mg/l	
50-32-8	Benzo(a)pyrene	0.000057 1	U: 0.00021			
86-74-8	Carbazole	0.00012 U		0.00012		
91-20-3	Naphthalene	0.000073	Uj 0.00021			
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limi	ts	
367-12-4	2-Fluorophenol	49%		36-12	26%	
4165-62-2	Phenol-d5	32%	: :	9-739	%	
118-79-6	2,4,6-Tribromophenol	94%	:	34-1	53%	
4165-60-0	Nitrobenzene-d5	94%	:	35-16	66%	
321-60-8	2-Fluorobiphenyl	89%	:	36-12	26%	
1718-51-0	Terphenyl-d14	92%		33-1	54%	

U = Not detected

MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



U

By

NN

Page 1 of 1

Client Sample ID: MM-14C Lab Sample ID:

LA15342-5

Matrix:

AQ - Ground Water

DF

1

SW846 8260B

Prep Date

n/a

Date Sampled: 12/18/15

Date Received: 12/19/15 Percent Solids: n/a

Method: Project:

Intermediate GWS- SCE&G Calhoun Park Area Site

Analyzed

12/25/15

Prep Batch

n/a

Analytical Batch V2Q696

Run #1 Run #2

Purge Volume

Run #1

5.0 ml

File ID

2Q0023672.D

Run #2

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	0.0028	0.0010	mg/l	
108-88-3	Toluene	ND	0.0010	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	mg/l	
1330-20-7	Xylene (total)	ND	0.0020	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Lim	its
17060-07-0	1,2-Dichloroethane-D4	117%		84-1	24%
2037-26-5	Toluene-D8	101%	}	83-1	15%
460-00-4	4-Bromofluorobenzene	95%	.:	89-1	11%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank



Page 1 of 1

Client Sample ID: MM-14C Lab Sample ID: LA15342-5

980 ml

Matrix:

AQ - Ground Water

Date Sampled: 12/18/15

Method:

SW846 8270D SW846 3510C

Date Received: 12/19/15

Project:

Intermediate GWS- SCE&G Calhoun Park Area Site

Percent Solids: n/a

Run #1

File ID DF Analyzed C0012532.D 1 12/24/15

By ΙK

Prep Date 12/23/15 **OP3741**

Prep Batch Analytical Batch EC640

Run #2

Initial Volume Final Volume

Run #1

1.0 ml

Run #2

ABN Special List

CAS No.	Compound	Result	RL	Units Q
105-67-9	2,4-Dimethylphenol	ND	0.0051	mg/l
50-32-8	Benzo(a)pyrene	0.00020	0.00020	-
86-74-8	Carbazole	, ND	0.0051	mg/l
91-20-3	Naphthalene	0.00041	0.00020	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	25% a	ř <u>.</u>	36-126%
4165-62-2	Phenol-d5	24%	<u>.</u> j	9-73%
118-79-6	2,4,6-Tribromophenol	41%		34-153%
4165-60-0	Nitrobenzene-d5	88%	· e ¹	35-166%
321-60-8	2-Fluorobiphenyl	91%		36-126%
1718-51-0	Terphenyl-d14	103%	<i>.</i> !	33-154%

(a) Outside of control limits. However, this procedure allows for one surrogate exceedance for acid and base fraction.

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank



By

CP

Page 1 of 1

Client Sample ID: MM-14C

Lab Sample ID: LA25863-7

Matrix:

AQ - Ground Water

Date Sampled: Date Received:

09/26/16

Method:

SW846 8260B

09/28/16

DF

1

Percent Solids: n/a

Project:

Intermediate GWS- SCE&G Calhoun Park Area Site

Analyzed

10/03/16

Prep Batch n/a

Prep Date

n/a

Analytical Batch V2J762

Run #1 Run #2

Purge Volume 5.0 ml

File ID

2J0024589.D

Run #1 Run #2

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2 108-88-3 100-41-4 1330-20-7	Benzene Toluene Ethylbenzene Xylene (total)	ND	0.0050 0.0050 0.0050 0.0050	0.00021 0.00021 0.00027 0.00039	mg/l mg/l	J
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limi	ts	
17060-07-0 2037-26-5 460-00-4	1,2-Dichloroethane-D4 Toluene-D8 4-Bromofluorobenzene	100% 99% 95%		84-12 83-11 89-11	5%	

ND = Not detected

MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

Ву

ΙK

Page 1 of 1

Client Sample ID: MM-14C Lab Sample ID: LA25863-7

File ID

970 ml

Matrix:

 $\boldsymbol{A}\boldsymbol{Q}$ - Ground Water

DF

1

Date Sampled: Date Received:

09/26/16 09/28/16

Method:

SW846 8270D SW846 3510C

Percent Solids: n/a

n/2

Project:

Intermediate GWS- SCE&G Calhoun Park Area Site

Run #1

F0022083.D

Analyzed 09/30/16 Prep Date 09/29/16

Prep Batch OP6416 Analytical Batch EF702

Run #2

Initial Volume Final Volume

Run #1

1.0 ml

Run #2

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
105-67-9	2,4-Dimethylphenol	ND	0.010	0.00084	mg/l	
50-32-8	Benzo(a)pyrene	ND	∄ 0.010	0.00005	7 mg/l	
86-74-8	Carbazole	ND	0.010	0.00012		
91-20-3	Naphthalene	0.00040	, 0.010	0.00007		J
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limi	its	
367-12-4	2-Fluorophenol	54%		23-8	5%	
4165-62-2	Phenol-d5	38%		10-6	9%	
118-79-6	2,4,6-Tribromophenol	99%	•	48-1	38%	
4165-60-0	Nitrobenzene-d5	78%	:	51-1	28%	
321-60-8	2-Fluorobiphenyl	79%	:	55-1	22%	
1718-51-0	Terphenyl-d14	76%	{ :	43-1	38%	

ND = Not detected

MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

Page 1 of 1

Client Sample ID: MM-14C

Lab Sample ID: LA34212-3 AQ - Ground Water Date Sampled: 06/08/17 Date Received: 06/09/17

Matrix:

SW846 8260B

Percent Solids:

Method: Project:

Intermediate GWS- SCE&G Calhoun Park Area Site

File ID Analyzed DF By Prep Date Prep Batch **Analytical Batch** Run #1 2X0022556.D 06/14/17 18:03 PJ V2X258 1 n/a n/a

Run #2

Purge Volume

Run #1 5.0 ml

Run #2

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2 108-88-3 100-41-4 1330-20-7	Benzene Toluene Ethylbenzene Xylene (total)	9.0 0.29 U 0.37 U 0.56	5.0 5.0	0.21 0.29 0.37 0.39	ug/l ug/l ug/l ug/l	J
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Lim	its	
17060-07-0 2037-26-5 460-00-4	1,2-Dichloroethane-D4 Toluene-D8 4-Bromofluorobenzene	101% 98% 100%		83-1	.24% .15% .11%	

U = Not detected

MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

By

Page 1 of 1

Client Sample ID: MM-14C Lab Sample ID:

LA34212-3

Date Sampled:

06/08/17

Matrix:

AQ - Ground Water

DF

1

Date Received:

06/09/17

Method:

SW846 8270D SW846 3510C

Percent Solids:

Project:

Intermediate GWS- SCE&G Calhoun Park Area Site

Analyzed

06/14/17 10:52 IK

Prep Batch

Analytical Batch

Run #1 Run #2

Prep Date

06/13/17 09:00

OP8623

EF1028

Initial Volume Final Volume

1000 ml

File ID

F0030814A.D

1.0 ml

Run #1 Run #2

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
105-67-9	2,4-Dimethylphenol	0.81 U	· 10	0.81	ug/i	
50-32-8	Benzo(a)pyrene	0.055 U	. 10	0.055	ug/l	
86-74-8	Carbazole		10	0.11	ug/l	
91-20-3	Naphthalene	5.1	. 10	0.071	ug/I	J
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Lim	its	
367-12-4	2-Fluorophenol	49%		23-8	5%	
4165-62-2	Phenol-d5	38%	i	10-6	9%	
118-79-6	2,4,6-Tribromophenol	84%		48-1	38%	
4165-60-0	Nitrobenzene-d5	75%		51-1	28%	
321-60-8	2-Fluorobiphenyl	80%		55-1	22%	
1718-51-0	Terphenyl-d14	76%		43-1	38%	

U = Not detected

MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

By

Page 1 of 1

Client Sample ID: MM-14C Lab Sample ID:

LA42536-3

Date Sampled:

n/a

Prep Date

n/a

03/21/18

Matrix:

AQ - Ground Water

DF

1

Date Received:

03/24/18

Method:

SW846 8260B

Percent Solids:

Project:

Intermediate GWS- SCE&G Calhoun Park Area Site

Analyzed

03/27/18 22:23 NN

Prep Batch **Analytical Batch**

V1I1415

Run #1 Run #2

Purge Volume

1I030735.D

File ID

Run #1 5.0 ml

Run #2

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2 108-88-3 100-41-4 1330-20-7	Benzene Toluene Ethylbenzene Xylene (total)	3.6 0.29 U 0.37 U 0.67	5.0 5.0 5.0 5.0	0.21 0.29 0.37 0.39	ug/l ug/l ug/l ug/l	J J
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limi	its	
17060-07-0 2037-26-5 460-00-4	1,2-Dichloroethane-D4 Toluene-D8 4-Bromofluorobenzene	106% 98% 97%		84-12 83-12 89-12	15%	

U = Not detected

MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

Client Sample ID: MM-14C Lab Sample ID: LA42536-3

Matrix: Method:

Project:

AQ - Ground Water

SW846 8270D SW846 3510C Intermediate GWS- SCE&G Calhoun Park Area Site Date Sampled:

03/21/18 03/24/18

Date Received: Percent Solids: n/a

File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F0037900.D	1	03/28/18 21:07	ΙĶ	03/27/18 16:09	OP10873	EF1316

Run #1 Run #2

Final Volume Initial Volume Run #1 980 ml 1.0 ml

Run #2

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
105-67-9	2,4-Dimethylphenol	0.83 Ù	10	0.83	ug/l	
50-32-8	Benzo(a)pyrene	0.056 U	10	0.056	ug/l	
86-74-8	Carbazole	0.11 U	- 10	0.11	ug/l	
91-20-3	Naphthalene	0.26		0.072	ug/l	J
CAS No.	Surrogate Recoveries	Run# 1	Run# 2 Limits			
367-12-4	2-Fluorophenol	56%	23-85%			
4165-62-2	Phenol-d5	40%	10-69%			
118-79-6	2,4,6-Tribromophenol	106%	48-138%			
4165-60-0	Nitrobenzene-d5	99%	51-128%			
321-60-8	2-Fluorobiphenyl	81%	55-122%			
1718-51-0	Terphenyl-d14	96%	43-138%			

U = Not detected

MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

By

n/a

Page 1 of 1

Client Sample ID: MM-14C

File ID

5.0 ml

Lab Sample ID: Matrix:

LA50650-9

AQ - Ground Water

DF

1

Date Sampled: 12/12/18 Date Received: 12/14/18

n/a

Method:

SW846 8260B

Percent Solids: n/a

Project:

Intermediate GWS- SCE&G Calhoun Park Area Site

Analyzed

12/20/18 11:00 LS

Analytical Batch Prep Date Prep Batch V2G5142

Run#1 Run #2

Purge Volume

2G094888.D

Run#1

Run #2

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2 108-88-3 100-41-4	Benzene Toluene Ethylbenzene	3.3 0.23 U 0.30	5.0 5.0 5.0	0.23 0.23 0.23	ug/l ug/l ug/l	J
1330-20-7	Xylene (total)	0.76	5.0	0.39	ug/l	J
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
17060-07-0	1,2-Dichloroethane-D4	110%	;	84-124%		
2037-26-5	Toluene-D8	100%	83-115%			
460-00-4 4-Bromofluorobenzene		96% 89-11			11%	

U = Not detected

MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

Page 1 of 1

Client Sample ID: MM-14C LA50650-9

Lab Sample ID: Matrix:

AQ - Ground Water

DF

1

Date Sampled: 12/12/18 Date Received: 12/14/18

SW846 8270D SW846 3510C

Percent Solids: n/a

Prep Batch

Method: Project:

Intermediate GWS- SCE&G Calhoun Park Area Site

Run#1

F0046284.D

File ID

1030 ml

Analyzed By 12/20/18 12:45 SV **Prep Date** 12/18/18 10:55 OP13076

Analytical Batch EF1703

Run #2

Initial Volume Final Volume

Run #1

1.0 ml

Run #2

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
105-67-9	2,4-Dimethylphenol	0.060 U	; 9.7	0.060	ug/l	
50-32-8	Benzo(a)pyrene	0.083 U	9.7	0.083	ug/l	
86-74-8	Carbazole	0.053 U	9.7	0.053	ug/l	
91-20-3	Naphthalene	0.32	9.7	0.075	ug/l	J
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
367-12-4	2-Fluorophenol	63%		19-8	4%	
4165-62-2	Phenol-d5	44%	10-70%			
118-79-6	2,4,6-Tribromophenol	125%	46-145%			
4165-60-0	Nitrobenzene-d5	110%	0% 36-143%			
321-60-8	2-Fluorobiphenyl	97%	48-116%			
1718-51-0	Terphenyl-d14	119%	£	45-1	33%	

U = Not detected

MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank